

### REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested. Claims 2, 5, 6 and 8-12 have been amended, and Claims 1 and 7 have been canceled without prejudice or disclaimer by way of the present amendment.

The features that have been added to amended Claim 2 find support in original Claim 1 as well as in the specification (e.g., page 13, lines 23-30) and therefore no new matter is added. Similarly, amended Claim 8 finds support in original Claim 7 and thus no new matter is added.

In the outstanding Office Action, Claims 1-3 and 7-9 were rejected as being anticipated by Gilbert et al (U.S. Patent 6,016,311, hereinafter Gilbert); Claims 4 and 10 were rejected as being unpatentable over Gilbert in view of Baden et al (U.S. Patent No. 6,353,598, hereinafter Baden, although it appears as though the Office Action is using Periyalwar (U.S. Patent No. 6,611,695), as a second reference); Claims 5 and 11 were rejected as being unpatentable over Gilbert in view of Baden; and Claims 6 and 12 were rejected as being unpatentable over Gilbert in view of Yun (U.S. Patent No. 6,463,295).

Claim 2 is directed to a method of allocating radio resources including the steps of obtaining a ratio between traffic of an uplink for transmission from the mobile station to the base station and traffic of a downlink for transmission from the base station to the mobile station such that the ratio reflects empirical data. The steps also include allocating the radio resources to the uplink and downlink according to the obtained ratio. The method of Claim 2 also includes a step of dividing time into a plurality of time periods corresponding to at least one of days of a week and hours of a day.

The present inventors identified that by dividing time into a plurality of time periods corresponding to at least one of days of a week and hours of a day, time-dependent traffic

characteristics are best dealt with. By taking advantage of this aspect in the claimed invention, the inventors were able to accomplish diligent radio-resource allocation that adequately accounts for the time period-specific traffic characteristics. This time-dependent characterization and break-down of time periods allows for greater than normal granularity and adaptability for allocating radio resources.

Gilbert is directed to a TDMA method for dynamic bandwidth allocation. The outstanding Office Action rejects Claim 2, citing column 7, lines 9-12, column 7, line 66 to column 8, line 6, as well as column 8, lines 38-47 as describing different time periods and deriving a ratio based on the corresponding time period. However, Gilbert provides no concrete explanation regarding specific time frames or the advantages that may be obtained by dividing the time periods into days of a week or hours of a day. Thus, it is respectfully submitted that Gilbert does not anticipate, nor render obvious the invention defined by amended Claim 2. As Claims 3-6 depend from Claim 2, it is respectfully submitted that these claims also patentably define over Gilbert.

With regard to Claims 4-5, the Office Action combines Gilbert with the secondary reference of Baden (although it appears the Office Action is asserting “Periyalwar”). However, Periyalwar is asserted for its calculating a weighted sum of a real time traffic demand, but does not otherwise cure the deficiency regarding the division of time as discussed above with regard to amended Claim 2. Accordingly, it is respectfully submitted that Claim 4 patentably defines over Gilbert in view of Periyalwar.

Claim 5 is rejected over Gilbert in view of Baden. Baden is asserted for its disclosure of transmitting information about the radio resources with respect to at least one of the uplink and the downlink. However, Baden does not otherwise teach or suggest the feature that is also absent in Gilbert, namely the division of time periods into days of a week or hours.

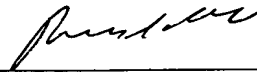
Claim 6 is rejected over the combination of Gilbert in view of Yun. However, Yun is asserted for its disclosure of allocating transmission power according to communication quality, but does otherwise not cure the deficiency with regard to Gilbert as discussed above. Accordingly, it is respectfully submitted that no matter how Gilbert is combined with any of the secondary references as discussed above, the combination does not teach or suggest the invention defined by Claims 3-6.

Claims 8-12 are directed to base station apparatuses that are believed to patentably define over the asserted prior art for at least the same reasons as discussed above with regard to Claims 2-6.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 2-6 and 8-12, as amended, patentably define over the asserted prior art. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully submitted,

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